Research Operations Continuity

Restart Guidance for Laboratory Principal Investigators and Lab Directors

The following guide is provided to assist researchers in their lab-specific preparations for bringing their research laboratories back online from temporary shutdown. As you restart research, please keep safety in mind and contact **Environmental Health & Safety** at **914-923-2818** with questions or for assistance with risk assessment, safeguards, or hazardous materials management. For facility issues, contact **Facilities** at **914-923-2725 (Pleasantville)** or **212-346-1521 (NY)**.

Public Health Considerations

- Wear face coverings when social distancing is not possible (in progress – covered under NYS Executive Order)
- Develop a plan for physical distancing in the workplace. Consider the following:
    - Identify maximum number of personnel for workspace according to optimal density (75 SqFt/occupant, may differ based on layout). Avoid working alone whenever possible, but especially when working with hazardous materials.
    - Work in staggered shifts, to include a time buffer between shifts to eliminate overlap.
    - Maintain 6' distance, which is roughly two-arm's length. Visual cues, such as tape, between individual workspaces may be a helpful reminder.
    - Avoid use of bench tops that face one-another unless barriers are installed.
    - Use a 'Google Doc', Microsoft Teams, or something similar, in order to maintain a visible schedule for staggered shared lab access or lab equipment sign-up and use. To be set up by PI.
        - Maintain text (or similar) communication to prevent overlap.
- Wash hands upon lab entry, and upon departure.
- Disinfect high touch areas between shifts, or more frequently as desired. Use disinfectant wipes on sensitive equipment.

First Day Back

- Prior to restarting any research, the PI must perform a complete and thorough walkthrough of all spaces; PI is responsible to check that nothing is obviously out of place, missing, damaged, leaking, etc. Address any such issues immediately.
- Ensure you have adequate personal protective equipment (PPE) available for near-term planned research.
- Ensure you have adequate hand-soap and towels for handwashing, and disinfectant appropriate for cleaning lab surfaces and equipment.
- Verify all emergency equipment is functional and accessible.
    - Flush all eyewashes in your labs for 1 to 2 minutes (given the eyewashes have a functional drain). Check that the temperature is tepid. Document you have checked the eyewash.
    - Verify that safety showers have been checked by Buildings & Grounds in the last 6 months.

        - Check fire extinguisher pressure gauges to make sure the indicator is in operating range.
        - Verify emergency equipment, such as eyewashes, safety showers, sprinkler heads, fire extinguishers, and pull stations are visible and not obstructed.
    - Check chemical containers for damage, leaks, pressure build up, etc.
    - Power up electrical equipment slowly and one at a time. Potential exists to overload electrical circuits.
    - Verify that the chemical fume hood is currently certified by checking the sticker issued by EHS. Test the hood to ensure that the sash can be raised up with one hand to the mechanical stop or 12 inch vertical opening and that it does not go into alarm. If the hood does not have a flow monitoring device, check air flow by using a tissue or Kim Wipe to see if it is sufficiently drawn inward.
    - Check that all utilities such as house vacuum, air and natural gas are operational for your needs.
    - Water connections: turn water back on slowly. Check connections for leaks. Do not leave the site right away as some connections may burst after a few minutes. Return to the equipment a short time later to confirm there are no leaks. Call Facilities to report any leaks immediately.
    - Pour small amounts of water down dry traps/floor drains to mitigate sewer gas smells, which can be confused for natural gas leaks.
    - As you begin starting active research again, keep plans flexible to accommodate changes. Documenting lab-specific actions taken can help future decisions.

General

- Avoid engaging in startup procedures alone. Try to have at least two people present in case any issue arises. Have a general planned schedule of when certain processes should be back up and running.
- Use the opportunity of bringing processes back online to cross-train other members of your laboratory.
- Be cautious as your research ramps back up. Accidents are more likely to occur if a lab is rushed back into service
- Note that shared facilities, such as stockrooms or core labs, may be on different ramp up schedules or in more demand than during normal operation.
- Be aware that many lab items may be in short supply or have longer lead times, including gases, chemicals, and PPE.
- Schedule deliveries of research materials in smaller quantities and expect delays. Updated Pace Mail Services schedule found at https://www.pace.edu/admin-services/mail-services/covid-19.
- Conduct a risk assessment to determine the appropriate level of PPE.
    - Provide individual PPE whenever possible.
    - Disinfection may be problematic or impractical for some PPE that is commonly shared (cryogloves). Wear nitrile or latex gloves before donning. Tasks requiring special PPE may be best designated to select individuals in order to manage public health considerations.

    - If PPE can be disinfected, do so. Additionally, wash hands before and after use.
- Consider if items worn for public health considerations (e.g. surgical masks) may hinder safe use of PPE used to mitigate exposure to hazardous materials.
- Do not wear your lab gloves outside the labs. It will be common to see people in gloves outside labs, and it is best for it to be clear for everyone that anyone wearing gloves is doing so for sanitary reasons only.

Animal Care

- Communicate with your animal care manager prior to restarting animal research.
- Confirm inventory of controlled substances and proper documentation.

Biologicals

- Verify that biosafety cabinets have not gone out of certification over the shutdown period.
- Ensure you have red bag containers and sharps containers available before beginning work.
- Ensure appropriate disinfectants for your biological work are available and not expired.
- Verify your CO2 supply before beginning use of incubators.

Chemicals

- Ensure you have hazardous waste containers available before beginning work.
- Maintain separation of non-compatibles as you get re-established in the lab again (e.g. oxidizers and flammable gases, acids and bases or flammables).
- Ensure all compressed gas cylinders are chained/secured.
- Consider leak testing compressed gas piping systems before using.

Radioactive Materials

- Verify all survey equipment are operating normally.
- Perform a survey of the lab before beginning work and check for possible contamination.
- Perform an inventory check to ensure all materials are accounted for.

Equipment

- Freezers and refrigerators may have “died” during the shutdown. Check each by slowly opening door (items may have shifted). If not functioning, close and take appropriate action. Consult EH&S if very moldy, a hazardous situation exists or you need additional waste containers for cleaning out.
- Review manuals for any equipment’s start up procedures.
- Do not daisy chain or use extension cords in attempts to reach emergency power.
- Verify “Laser In Use” lights, door interlocks, or other safety related controls still operate.
- Verify cryogen supply. Do not fill units alone. Contact cryogen suppliers to make any special delivery arrangements/changes necessary.
- Verify heat sources do not have damaged cords before reconnecting to power (includes, but not limited: hot plates, ovens, heat blocks, sterilizers, and water baths).

Department Considerations for Department Chairs and Laboratory Directors

- Keep an updated list of which labs are in which stage of the restarting process. If labs have schedules to get back online, request copies.
- Walk through the building, verifying that corridor fire extinguishers, pull stations and emergency egress are not obstructed.
- It may be advised to have a delivery management plan, especially with respect to storage of delivered supplies. Labs in your area may overwhelm standard service plans (https://www.pace.edu/admin-services/mail-services/covid-19).
- Centralized gas storage areas are a particularly important area to keep an eye on. All gases must be restrained immediately upon delivery.
- Consider developing a lab visitor policy for your department, to include an entry/exit log for future contact tracing, should that become necessary.
- Departments or laboratories that share common facilities, including break rooms and conference areas, should coordinate schedules and procedures to accommodate public health considerations.